NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

WATER HARVESTING CATCHMENT

(No.)
CODE 636

DEFINITION

A facility for collecting and storing precipitation.

PURPOSE

To provide water for livestock, fish and wildlife, recreation, or other purposes.

CONDITIONS WHERE PRACTICE APPLIES

This practice applies to areas where there is a need for additional water. The contributing area must have a potential to furnish the quantity and quality of water required for the intended use.

CRITERIA

Each water-harvesting catchment must be designed according to a plan suited to the water requirements and the site conditions. The following points shall be considered in designing water-harvesting catchments:

- Quality and quantity of water required for the planned use.
- Probability of filling the storage area or basin.
- Area of apron needed for the required water yield.
- Materials and method required ensuring that the apron is smooth and impervious. Earth, treated earth, wax, rubber, plastic, asphalt, concrete, steel, and other such suitable materials are acceptable for this purpose.
- Provisions for diverting foreign runoff from the catchment area to prevent damage and excessive sedimentation.
- Provisions for protecting the apron from damage by runoff in excess of that needed to maintain the design capacity of the conveyance system. An overflow pipe or an emergency spillway can be used.
- Need for a sediment trap between the apron and the storage basin.
- A storage basin that is adequate in size, impermeable and durable for the required water. Earth basins and tanks of steel, concrete, Butyl rubber and similar facilities are acceptable. Earth dams must have at least 1 ft of freeboard above design high water. All storage basins must be protected from 10-year-frequency storms. An overflow device must be installed in all storage basins.
- Need for evaporation repressors, such as rock filling and floating covers.
- Adequate protection to prevent damage from weather, animals, vandals, wildlife, and traffic. Fencing may be necessary.
- Provisions for maintaining the apron, the conveyance system, the overflow device, and the storage basin.

CONSIDERATIONS

Effects of trapping or catching of water on surface and ground water. Factors include changes in evaporation, timing of releases from the catchment area, and the impact of the type of catchment on surface water versus ground water changes.

Potential changes in surface water quality resulting from reduced flow contributing to reduced erosion and sediment yield. Consider the size of the harvest area and the impact of associated structures, such as sediment traps.

Waste assimilation capacity and dissolved oxygen.

Effects of loss of ground water dilution and the reduction of input of dissolved salts and chemicals on ground water quality.

PLANS AND SPECIFICATIONS

Plans and specifications for water-harvesting catchments shall be in keeping with this standard and shall describe the requirements for installing the practice to achieve its intended purpose.

OPERATION AND MAINTENANCE

Provisions shall be made, as necessary, for operations and maintenance requirements and may include a formal plan commensurate with the size and complexity of the application.

Installed practices will be inspected periodically to ensure proper function.